Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (Previously Presented) An image processing apparatus for smoothing image data that is formed by a plurality of pixels and includes at least one color component, comprising:

smoothing means for selectively performing, for at least one color component of a target pixel, smoothing that uses pieces of color information of at least one color component of the target pixel and of pixels adjacent to the target pixel among a plurality of pixels that form the image data, the smoothing done in accordance with correlation between the target pixel and pixels in the vicinity of the target pixel.

2.   (Previously Presented) An image processing apparatus for smoothing image data that is formed by a plurality of pixels and includes at least one color component, comprising:

similarity degree calculating means for calculating similarity degrees indicating similarity between a target pixel and pixels in the vicinity of the target pixel among a plurality of pixels that form the image data;

classifying means for classifying pixels whose similarity degrees have been calculated by the similarity degree calculating means into one of a plurality of groups having different similarity degree features; and

smoothing means for selecting a pixel to be subjected to smoothing from among a pixel that has been classified into a particular group in the plurality of groups and pixels in the vicinity of the pixel that has been classified into the particular group, and for performing smoothing on color information of at least one color component of the selected pixel by using

pieces of color information of at least one color component of the selected pixel and of pixels adjacent to the selected pixel.

3.   (Previously Presented) The image processing apparatus according to claim 2, wherein said smoothing means smoothes color information of a color component of a pixel adjacent to a pixel that has been classified into the particular group by the classifying means, and restores into its original state color information of a color component of a smoothed pixel among pixels adjacent to a pixel that has not been classified into the particular group by the classifying means.

4.   (Previously Presented) The image processing apparatus according to claim 3, wherein said smoothing means:

sequentially selects pixels that became subjects of classification by the classifying means;

smoothes color information of a color component of a pixel that is adjacent to not only a pixel selected at an arbitrary time point but also to a pixel that is not selected at the arbitrary time point when the selected pixel is classified into the particular group; and

restores into its original state color information of a color component of a smoothed pixel among pixels adjacent to the pixel selected at the arbitrary time point when the selected pixel is not classified into the particular group.

5.   (Previously Presented) The image processing apparatus according to claim 2, wherein said smoothing means smoothes color information of a color component of a pixel that is adjacent to a plurality of pixels that have been classified into the particular group by the classifying means.

6.   (Previously Presented) The image processing apparatus according to claim 2, wherein said smoothing means uses, as said particular group, a group having a feature that

similarity degrees calculated in at least two different directions by the similarity degree calculating means are approximately the same.

7.   (Previously Presented) The image processing apparatus according to claim 6, wherein said smoothing means judges that similarity degrees in at least two different directions are approximately the same when a difference between similarity degrees calculated in the at least two different directions by the similarity degree calculating means is smaller than a prescribed threshold value.

8.   (Currently Amended) An image processing apparatus for smoothing image data that is formed by a plurality of pixels and includes at least one color component, comprising:

interpolating means for interpolating pieces of color information of a color component that is absent from pixels that are arranged at a prescribed pitch among pixels that form the image data;

similarity degree calculating means for calculating similarity degrees in at least ~~two~~ four different directions for each pixel to be a subject of interpolation by the interpolating means;

classifying means for classifying each of pixels whose similarity degrees have been calculated by the similarity degree calculating means into one of a plurality of groups having different similarity degree features; and

smoothing means for selecting a pixel to be subjected to smoothing from among a pixel that has been classified into a particular group in the plurality of groups and pixels in the vicinity of the pixel that has been classified into the particular group, and for performing smoothing on color information of a color component of the selected pixel by using pieces of color information of color components of the selected pixel and of pixels adjacent to the selected pixel.

9.   (Previously Presented) The image processing apparatus according to claim 8, wherein: said smoothing means performs the smoothing parallel with the interpolation by the interpolating means.

10.   (Previously Presented) The image processing apparatus according to claim 8, wherein:

said interpolating means employs, as subjects of the interpolation, pixels that miss a color component having a highest spatial arrangement density; and

said smoothing means smoothes color information of the color component having the highest spatial arrangement density of a pixel adjacent to a pixel that has been classified into the particular group.

11.   (Previously Presented) The image processing apparatus according to claim 8, wherein said smoothing means smoothes color information of a color component of a pixel adjacent to a pixel that has been classified into the particular group by the classifying means, and restores into its original state color information of a color component of a smoothed pixel among pixels adjacent to a pixel that has not been classified into the particular group by the classifying means.

12.   (Previously Presented) The image processing apparatus according to claim 11, wherein said smoothing means:

sequentially selects pixels that became subjects of classification by the classifying means;

smoothes color information of a color component of a pixel that is adjacent to not only a pixel selected at an arbitrary time point but also to a pixel that is not selected at the arbitrary time point when the selected pixel is classified into the particular group; and

restores into its original state color information of a color component of a smoothed pixel among pixels adjacent to the pixel selected at the arbitrary time point when the selected pixel is not classified into the particular group.

13.   (Previously Presented) The image processing apparatus according to claim 8, wherein said smoothing means smoothes color information of a color component of a pixel that is adjacent to a plurality of pixels that have been classified into the particular group by the classifying means.

14.   (Currently Amended) The image processing apparatus according to claim 8, wherein said smoothing means uses, as said particular group, a group having a feature that similarity degrees calculated in at least two different directions by the similarity degree calculating means are approximately the same at least two sets of similarity degrees calculated for two of the four different directions are approximately the same, the two directions being substantially orthogonal to each other.

15.   (Currently Amended) The image processing apparatus according to claim 14, wherein said smoothing means judges that any two calculated sets of similarity degrees in at least two different directions are approximately the same when a difference between the two calculated sets of similarity degrees calculated in the at least two different directions by the similarity degree calculating means is smaller than a prescribed threshold value.

16.   (Original) A storage medium in which an image processing program is stored that causes a computer to smooth image data that is formed by a plurality of pixels and includes at least one color component, the image processing program causing the computer to execute:

a smoothing step of selectively performing, for at least one color component of a target pixel, smoothing that uses pieces of color information of at least one color component of the target pixel and of pixels adjacent to the target pixel among a plurality of pixels that

form the image data, the smoothing done in accordance with correlation between the target

pixel and pixels in the vicinity of the target pixel.

17.   (Original) A storage medium in which an image processing program is stored

that causes a computer to smooth image data that is formed by a plurality of pixels and

includes at least one color component, the image processing program causing the computer to

execute:

a similarity degree calculating step of calculating similarity degrees indicating

similarity between a target pixel and pixels in the vicinity of the target pixel among a plurality

of pixels that form the image data;

a classifying step of classifying pixels whose similarity degrees have been calculated

by the similarity degree calculating step into one of a plurality of groups having different

similarity degree features; and

a smoothing step of selecting a pixel to be subjected to smoothing from among a pixel

that has been classified into a particular group in the plurality of groups and pixels in the

vicinity of the pixel that has been classified into the particular group, and for performing

smoothing on color information of at least one color component of the selected pixel by using

pieces of color information of at least one color component of the selected pixel and of pixels

adjacent to the selected pixel.

18.   (Original) The storage medium storing the image processing program

according to claim 17, wherein said smoothing step smoothes color information of a color

component of a pixel adjacent to a pixel that has been classified into the particular group by

the classifying step, and restores into its original state color information of a color component

of a smoothed pixel among pixels adjacent to a pixel that has not been classified into the

particular group by the classifying step.

19.   (Original) The storage medium storing the image processing program according to claim 18, wherein said smoothing step:

sequentially selects pixels that became subjects of classification by the classifying step;

smoothes color information of a color component of a pixel that is adjacent to not only a pixel selected at an arbitrary time point but also to a pixel that is not selected at the arbitrary time point when the selected pixel is classified into the particular group; and

restores into its original state color information of a color component of a smoothed pixel among pixels adjacent to the pixel selected at the arbitrary time point when the selected pixel is not classified into the particular group.

20.   (Original) The storage medium storing the image processing program according to claim 17, wherein said smoothing step smoothes color information of a color component of a pixel that is adjacent to a plurality of pixels that have been classified into the particular group by the classifying step.

21.   (Original) The storage medium storing the image processing program according to claim 17, wherein said smoothing step uses, as said particular group, a group having a feature that similarity degrees calculated in at least two different directions by the similarity degree calculating step are approximately the same.

22.   (Original) The storage medium storing the image processing program according to claim 21, wherein said smoothing step judges that similarity degrees in at least two different directions are approximately the same when a difference between similarity degrees calculated in the at least two different directions by the similarity degree calculating step is smaller than a prescribed threshold value.

23.   (Original) A storage medium in which an image processing program is stored that causes a computer to smooth image data that is formed by a plurality of pixels and

includes at least one color component, the image processing program causing the computer to execute:

interpolating step for interpolating pieces of color information of a color component that is absent from pixels that are arranged at a prescribed pitch among pixels that form the image data;

similarity degree calculating step for calculating similarity degrees in at least two different directions for each pixel to be a subject of interpolation by the interpolating step;

classifying step for classifying each of pixels whose similarity degrees have been calculated by the similarity degree calculating step into one of a plurality of groups having different similarity degree features; and

smoothing step for selecting a pixel to be subjected to smoothing from among a pixel that has been classified into a particular group in the plurality of groups and pixels in the vicinity of the pixel that has been classified into the particular group, and for performing smoothing on color information of a color component of the selected pixel by using pieces of color information of color components of the selected pixel and of pixels adjacent to the selected pixel.

24.   (Original) The storage medium storing the image processing program according to claim 23, wherein said smoothing step performs the smoothing parallel with the interpolation by the interpolating step.

25.   (Original) The storage medium storing the image processing program according to claim 23, wherein:

said interpolating step employs, as subjects of the interpolation, pixels that miss a color component having a highest spatial arrangement density; and

said smoothing step smoothes color information of the color component having the highest spatial arrangement density of a pixel adjacent to a pixel that has been classified into the particular group.

26.   (Original) The storage medium storing the image processing program according to claim 23, wherein said smoothing step smoothes color information of a color component of a pixel adjacent to a pixel that has been classified into the particular group by the classifying step, and restores into its original state color information of a color component of a smoothed pixel among pixels adjacent to a pixel that has not been classified into the particular group by the classifying step.

27.   (Original) The storage medium storing the image processing program according to claim 26, wherein said smoothing step:

sequentially selects pixels that became subjects of classification by the classifying step;

smoothes color information of a color component of a pixel that is adjacent to not only a pixel selected at an arbitrary time point but also to a pixel that is not selected at the arbitrary time point when the selected pixel is classified into the particular group; and

restores into its original state color information of a color component of a smoothed pixel among pixels adjacent to the pixel selected at the arbitrary time point when the selected pixel is not classified into the particular group.

28.   (Original) The storage medium storing the image processing program according to claim 23, wherein said smoothing step smoothes color information of a color component of a pixel that is adjacent to a plurality of pixels that have been classified into the particular group by the classifying step.

29.   (Original) The storage medium storing the image processing program according to claim 23, wherein said smoothing step uses, as said particular group, a group

having a feature that similarity degrees calculated in at least two different directions by the similarity degree calculating step are approximately the same.

30.   (Original) The storage medium storing the image processing program according to claim 29, wherein said smoothing step judges that similarity degrees in at least two different directions are approximately the same when a difference between similarity degrees calculated in the at least two different directions by the similarity degree calculating step is smaller than a prescribed threshold value.